



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,264	03/17/2004	Teddy M. Keller	NC 96,200	4783

26384 7590 05/10/2006

NAVAL RESEARCH LABORATORY
ASSOCIATE COUNSEL (PATENTS)
CODE 1008.2
4555 OVERLOOK AVENUE, S.W.
WASHINGTON, DC 20375-5320

EXAMINER

TRUONG, DUC

ART UNIT PAPER NUMBER

1711

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/808,264
Filing Date: March 17, 2004
Appellant(s): KELLER ET AL.

MAILED

MAY 10 2006

GROUP 1700

United States Government, as represented by the Secretary of the Navy
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 3/6/06 appealing from the Office action
mailed 11/29/05.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

The present application and US Patent Application No. 10/808,266 are both divisional applications of the same parent application, US Patent 6,756,470. Both applications are under appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Art Unit: 1711

Hammann et al., "Synthesis of Seven New Polyphenyl Ethers" J. Chem. and Eng. Data, 15(2), 352 (1970), cited in Keller reference.

Williams et al., "Solvent assisted Ullmann Ether Synthesis. Reaction of Dihydric Phenols" J. Org. Chem., 32, 2501 (1967), cited in Keller reference.

Declaration under 37 CFR 1.132 of Teddy M. Keller.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Keller'471.

The reference discloses resins comprising a polyaromatic ether of the formula $(-O-\phi)_x$ wherein x is from 1-10 and the phenyl groups are attached at the meta or para position (see Abstract, col. 3, line 60 et seq.), overlapped with claimed n which is an integer greater than or equal to 7.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-23, 26-27, 56 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matzner et al (4,968,758 or 5,084,530).

The references disclose an aromatic ether oligomer comprising the formula in claim 26 in that R1 is Oxygen, d=0 and the claimed T=OH. (See col. 5, line 20 et seq.) such as dihydroxyaryl ethers (see col. 6, lines 5-7 of '758; lines 1-2 of '530).

The references further disclose the process of preparing said polyaromatic ether comprising the steps of reacting dihydroxyaryl ethers with a dihaloaromatic such as terephthaloyl chloride or isophthaloyl chloride (see col. 16, line 58 of '758; line 55 of '530), in the presence of a copper compound (see col. 23, lines 55-65 of '758; lines 35-45 of '530) , and a base such as cesium carbonate and potassium carbonate (see col. 19, line 48, line 55 of '758; line 52, line 60 of '530).

The disclosures of the references differ from the instant claims in that they do not disclose the molar ratio in the claimed process.

However, the references do disclose the required reactants under different molar ratios (see Examples) to form the claimed products. Therefore, it would have been obvious to one of ordinary skill in the art to select reactants under molar ratios from the references within the claimed molar ratio since they have been shown to be effective in a similar system and thus would have been expected to provide adequate results. There is no showing of unexpected results derived from said selection.

(10) Response to Argument

With respect to claims 1-2, Applicant's arguments are based on the claimed $(-O-\phi)_x-$ would be derived from $HO-(O-\phi)_x-OH$ in that the references do not disclose said

Art Unit: 1711

phenols where x is 7,8,9 or 10. Said arguments have been fully considered but they are not persuasive since they are not commensurate in scope with the claims since the formula in claim 1 does not require the (O- ϕ)_x- derived from any phenols. The references do disclose the formula in claim 1 where x is from 1-10, as in the claims. With respect to claims 22-23, 26-27, 56 and 58; Applicant's arguments are based on the use of different reactants in the references because the processes of the references produce only polymers containing carbonyl groups in the main chain, in that the claims require "one or more non-fused aromatic rings without intervening functional groups", without carbonyl groups in the main chain.

Said arguments have also been fully considered but they are not persuasive since it is included in the broad "Ar is an independently selected divalent aromatic radical with or without substituents containing one or more fused aromatic rings, one or more non-fused aromatic rings without intervening functional groups" in that the use of the term "with or without" leaves the claims open to any conditions and it is not limited to "one or more non-fused aromatic rings without intervening functional groups".

Appellant has recognized that the references do disclose the steps of reacting dihydroxyaromatics and dihaloaromatics in the presence of a base and a copper compound, as stated at page 5, second paragraph in the Appeal Brief, as required in claims 22 and 26.

(11) Related Proceeding(s) Appendix

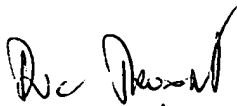
No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Art Unit: 1711

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Duc Truong



Conferees:

James, Seidleck,



David Wu

